

Title (en)

FRAME FOR OBJECTS THAT OPEN OUT, SUCH AS UMBRELLAS

Title (de)

TRÄGERSTRUKTUR FÜR ENTFALTBARE GEGENSTÄNDE SOWIE REGENSCHIRME

Title (fr)

ARMATURE POUR OBJETS DEPLOYABLES TELS QUE PARAPLUIES

Publication

**EP 1239748 A1 20020918 (FR)**

Application

**EP 00988959 A 20001219**

Priority

- FR 0003586 W 20001219
- FR 9916119 A 19991221

Abstract (en)

[origin: WO0145528A1] The invention relates to a structure which opens out and can be used as a frame for an umbrella, a parasol, a stall cover, a grapnel, a floating anchor, a space antenna a spraying boom protection device or a fruit gathering device. Said structure has branches (7) which are joined to a strut in an articulated manner and which are supported by arms (4) that are joined to the strut and at their other end, to said branches, in an articulated manner. The invention is characterized in that the strut consists of two parts; an inner part (1) and an outer part (6) which slide in relation to each other, and in that the branches (7) are articulated on a "runner" piece (8) that is fixed to the top of the outer part (6) of a strut and are supported by the articulated arms (4) in their opened-out position. At their strut end, said arms are articulated on a "stop" piece (5) which is fixed to the top of the inner part (1) of the strut (1). The invention is also characterized in that the inner part (1) of the strut is longer than the outer part (6) of the strut and in that said outer part constitutes the element that transmits the movement required to open and close the object.

IPC 1-7

**A45B 25/02**; **A45B 15/00**; **A01D 46/26**

IPC 8 full level

**A01D 46/26** (2006.01); **A45B 15/00** (2006.01); **A45B 19/00** (2006.01); **A45B 23/00** (2006.01); **A45B 25/02** (2006.01); **A45B 25/14** (2006.01); **A45B 25/22** (2006.01)

CPC (source: EP US)

**A01D 46/26** (2013.01 - EP US); **A45B 15/00** (2013.01 - EP US); **A45B 19/00** (2013.01 - EP US); **A45B 23/00** (2013.01 - EP US); **A45B 25/02** (2013.01 - EP US); **A45B 25/14** (2013.01 - EP US); **A45B 25/22** (2013.01 - EP US); **A01D 2046/262** (2013.01 - EP US); **A45B 2019/008** (2013.01 - EP US); **A45B 2023/0012** (2013.01 - EP US); **A45B 2025/105** (2013.01 - EP US)

Citation (search report)

See references of WO 0145528A1

Cited by

CN107027436A

Designated contracting state (EPC)

AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR

DOCDB simple family (publication)

**WO 0145528 A1 20010628**; AT E289175 T1 20050315; AU 2529001 A 20010703; DE 60018204 D1 20050324; EP 1239748 A1 20020918; EP 1239748 B1 20050216; FR 2802392 A1 20010622; FR 2802392 B1 20021018; US 2003089388 A1 20030515

DOCDB simple family (application)

**FR 0003586 W 20001219**; AT 00988959 T 20001219; AU 2529001 A 20001219; DE 60018204 T 20001219; EP 00988959 A 20001219; FR 9916119 A 19991221; US 16850102 A 20020919